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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,999	03/19/2004	Miki Takahashi	Q80517	6919
23373	7590	05/14/2007	EXAMINER	
SUGHRUE MION, PLLC			LEE, SIN J	
2100 PENNSYLVANIA AVENUE, N.W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20037			1752	
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			05/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/803,999	Applicant(s) TAKAHASHI ET AL.	
	Examiner Sin J. Lee	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15, 18-25 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-15, 18-25 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 16, 17 and 26-28 are canceled claims.
2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

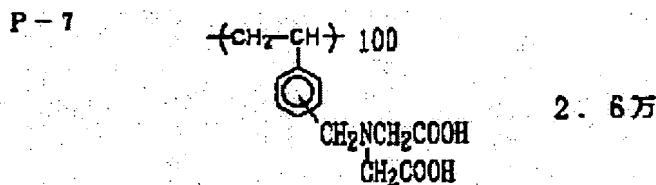
Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 2-15, 18-25 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al (JP 11-038635 and its full English translation provided by PTO) in view of Kawauchi (EP 0 992 850 A2).

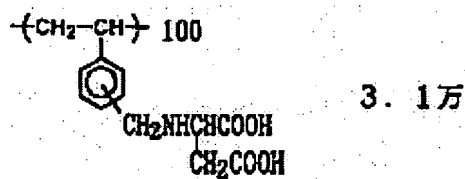
Tan teaches a positive type photosensitive lithographic printing plate, which is made by forming a middle layer containing polymer compound having specified repeating units (1), (2), or (3) on an aluminum substrate (which has undergone hydrophilicizing treatment) and then forming a positive type photosensitive layer (which

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contains alkaline soluble polymer such as polyhydroxy styrene, o-quinone diazido compound, printout agent, dyes and others) on the middle layer (see abstract, claim 1, [0040], [0041], [0052] of English translation). As one of examples for the repeating units (1), (2) or (3), Tan lists the following (see [0021])



, and this repeat unit is exemplified in Tan's working example 3 as well (see Table 1 in [0092]). Tan teaches ([0019]) that the repeat unit (1), (2) or (3) is present in his polymer in the amount of more than 40 mol% preferably. Tan also teaches ([0023]) that his polymer has Mw of 2,000-600,000 preferably. Tan also teaches the amount of coating for his middle layer to be 5-50 mg/m² preferably (see [0026]). Tan also discloses the following repeating unit as well



as one of examples for the repeating units (1), (2) or (3) (see [0021]). Tan teaches that his polymer containing the repeating units of formula (1), (2) or (3) can be a homopolymer as well as a *copolymer* (see [0012]). Also, in [0021], Tan teaches that *methyl methacrylate* or *methyl acrylate* can be used as comonomers. Based on Tan's such teachings, it would have been obvious to one skilled in the art to make Tan's polymer to be a copolymer containing methyl (meth)acrylate comonomer unit with a

reasonable expectation of obtaining a positive photosensitive lithographic printing plate having satisfactory printing resistance. Tan teaches that his photosensitive layer can be imaged with infrared rays and he also teaches the use of semiconductor laser (see [0065] of English translation).

Therefore, Tan teaches inventions of present claims except for the (i) present limitation with respect to the polymer further containing an onium group and (ii) present infrared absorbing agent.

With respect to the limitation (i), Kawauchi teaches a positive working planographic printing plate precursor comprising an intermediate layer and a positive working photosensitive layer, wherein the intermediate layer contains a polymer comprising a monomer unit having an acid group and a monomer unit having an onium group (see abstract, [0015], [0065]). By using such an intermediate layer, Kawauchi teaches that one can obtain an improved adhesion between the photosensitive layer and the substrate as well as remarkable improvement in the durability in printing (see [0015]. Kawauchi teaches that as the acid group, -COOH is particularly preferable (see [0020]). Since Tan's middle layer polymer already contains a repeating unit having -COOH groups (and since Tan teaches that his middle layer polymer can be a copolymer), it would have been obvious to one skilled in the art to further include a repeat unit containing an onium group in Tan's middle layer polymer in order to obtain a good adhesion between the photosensitive layer and the aluminum substrate and to obtain remarkable improvement in the durability in printing as taught by Kawauchi. Kawauchi also teaches ([0032]) that the intermediate layer polymer can comprises two

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or more kinds of monomer units having an acid group and two or more kinds of monomer units having an onium group. Therefore, it would also have been obvious to one skilled in the art to further include another repeat unit containing –COOH group in Tan's middle layer polymer with a reasonable expectation of obtaining a printing plate having improved adhesion between the photosensitive layer and the substrate and improved durability in printing as taught by Kawauchi. Therefore, Tan in view of Kawauchi would render obvious present inventions of claims 2-15, 18, 19 and 29-31.

With respect to present limitation as to the infrared absorbing agent, as already explained above, Tan clearly teaches that his photosensitive layer can be imaged with infrared rays and he teaches the use of semiconductor laser (see [0065] of English translation). It is very well known in the art, as evidenced by Kawauchi, (see [0081]) to use a compound, which generates heat by absorbing light in an infrared region, when using infrared rays as the light source in the exposure step. *Specifically*, Kawauchi teaches cyanine dyes shown in [0102]-[0103] as having satisfactory compatibility with an alkali-soluble polymeric compound in the photosensitive layer. Since Tan teaches the use of infrared rays (such as semiconductor laser) and since Tan's photosensitive layer contains an alkali-soluble polymeric compound, it would have been obvious to one skilled in the art to use cyanine dyes shown in Kawauchi as the compound generating heat by absorbing infrared light in order to obtain good compatibility with the alkali-soluble polymeric compound. Therefore, Tan in view of Kawauchi would render obvious present inventions of claims 20-25.

Response to Arguments

5. Applicants argue that present planographic printing plate precursor including the amended specific polymer (which contains the monomer of substituted or non-substituted (meth)acrylate) in the intermediate layer exhibits improved effects of the invention and point out to present Examples 5-8 and 10 which uses P-11, P-12 or P-21. However, when those Examples were compared with present Example 9, which uses P-6 (the polymer without the (meth)acrylate monomer unit), there is hardly any difference in results. Also, there is no comparative data which compares present invention and the closest prior art. See MPEP 716.02(e). Applicants also argue that there is no disclosure or suggestion in Tan and Kawauchi regarding the relationship with the further improved effects that are realized due to the inclusion of a structure derived from (meth)acrylate unit in the polymer and thus one skilled in the art would not have reasonable expected to achieve the effects of present invention, particularly with respect to obtaining both good printing durability and good summing properties. However, reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. See MPEP 2144. It is not necessary in order to establish a prima facie case of obviousness that there be a suggestion or expectation from the prior art that the claimed invention will have the same or a similar utility as one newly discovered by the applicant.

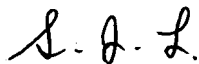
For those reasons stated here, present 103(a) rejection over Tan in view of Kawauchi still stands.

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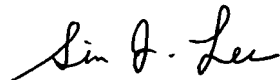
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee
May 10, 2007



SIN LEE
PRIMARY EXAMINER